

IN THE CLAIMS

1. (Four Times Amended) An apparatus, comprising:

a support structure formed of a material selected from the group consisting of glass fibers, plastic fibers, and a metal wire; and

a sample collection substrate constructed for solid phase microextraction on the support structure, wherein the substrate covers the entire perimeter of one end of the support structure and the substrate comprises a material selected from the group consisting of organic aerogels, inorganic aerogels, organic xerogels, inorganic xerogels, and combinations thereof,

wherein said support structure is attached to the plunger portion of a syringe and said plunger portion of the syringe includes a handle.

2. (original) The apparatus as recited in Claim 1, wherein the support structure is formed of a material selected from the group consisting of glass fibers, plastic fibers, stainless steel wire, and Kovar® wire.

3. (original) The apparatus as recited in Claim 1, wherein the collection substrate comprises at least one thin film on the support structure.

4. (original) The apparatus as recited in Claim 3, wherein the collection substrate comprises a plurality of layers on the support structure.
5. (original) The apparatus as recited in Claim 1, wherein the collection substrate comprises particles.
6. (original) The apparatus as recited in Claim 5, wherein the collection substrate comprises a mixture of particles having at least two chemical compositions.
7. (original) The apparatus as recited in Claim 1, wherein the collection substrate comprises a thin film and particles.
8. (original) The apparatus as recited in Claim 7, wherein the collection substrate comprises a thin film of xerogel on the support structure and aerogel particles on the thin film.

9. (original) The apparatus as recited in Claim 1, wherein the collection substrate comprises a layer of microspheres on the support structure.

10. (original) The apparatus as recited in Claim 1, wherein the collection substrate comprises an organic material and an inorganic material.

11. (original) The apparatus as recited in Claim 1, wherein the collection substrate further comprises at least one metal dopant selected from the group consisting of transition metals, rare earth metals, alkaline earth metals, and alkali metals.

12. (original) The apparatus as recited in Claim 1, wherein the support structure has two ends, one end containing the collection substrate and having a smaller outer diameter than the other end.

13-20. Cancel

21. (Previously added) The apparatus of Claim 1, wherein the metal wire comprises an iron containing alloy.

22. (Previously added) The apparatus of Claim 21, wherein the iron containing alloy comprises stainless steel.

23. Cancelled